

Amendments to the Specification:

Please replace paragraph [0028] with the following amended paragraph:

[0028] A layer, preferably having a thickness of less than about 0.5 inches and more preferably ranging from about 0.06 to about 0.09 inches, of a tool steel is applied, for example, by a spraying technique, such as a rapid solidification process developed at the Idaho National Engineering and Environmental Laboratory, to the parting line surface 90 of the chill block 12, and to a portion 92, 94 or to all of the sides 96, 98 of the chill block 12. The rapid solidification process is a spraying technique to harden the tool steel. The rapid solidification process is described in U.S. Patent Nos. 5,718,863 and 6,074,194, which are incorporated by reference. The tool steel utilized is steel that is stronger than the material forming the chill block base 88.

Please replace paragraph [0033] with the following amended paragraph:

[0033] In a second embodiment of the present invention, the chill block base 88 is made from a material, for example, copper or a metallic mixture including copper, for example, beryllium copper. A layer having a thickness, of less than about 0.5 inches and preferably ranging from about 0.060 to about 0.090 inches, of a tool steel is applied, for example, by a spraying technique, such as the rapid solidification process developed at the Idaho National Engineering and Environmental Laboratory, to the parting line surface/chill face 90 of the chill block base 88 and around a portion 92, 94 of the sides 96, 98 of the chill block 12. In addition, a layer of tool steel is present on the bottom of the chill block base 88.

Please replace paragraph [0034] with the following amended paragraph:

[0034] In a third embodiment of the present invention, a layer of tool steel is not present on any portion of the sides 96, 98 of the chill block 12.

Please replace paragraph [0035] with the following amended paragraph:

[0035] FIG. 3 is a flow chart illustrating a preferred embodiment of a new method 102 for manufacturing a chill block. The process of manufacturing a chill block in accordance with the preferred embodiment of the present invention involves applying a layer of a first material, for example tool steel, having a thickness of less than about 0.5 inches and preferably ranging from about 0.060 to about 0.090 inches, on an inside surface of a mold that is a negative of the chill block being formed 104.

Please replace paragraph [0045] with the following amended paragraph:

[0045] Further, the chill blocks, in accordance with the present invention, involve a steel layer that is bonded to a copper metal layer. Accordingly, the need to mechanically couple ~~the~~ a steel part to a copper part, as required when utilizing the prior art two-part steel and copper chill blocks is eliminated. Also, the need for a thermal grease to facilitate the transfer of heat between the steel part and the copper part is obviated. Moreover, the thickness of the steel layer is thinner than a steel layer of a conventional two-part steel and copper chill block of the prior art.